

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 1-25 (Canceled)

1 26. (Currently amended) A method to facilitate simulating a digital circuit,
2 comprising:

3 receiving a description of the digital circuit, wherein a first portion of the
4 description is in a hardware description language and a second portion of the
5 description is in a computer programming language,

6 blending the first portion and the second portion into an executable
7 simulation, wherein blending the first portion and the second portion involves
8 automatically creating a wrapper for code written in the computer programming
9 language so that code written in the hardware description language can call code
10 written in the computer programming language; and

11 executing the executable simulation, wherein executing the executable
12 simulation allows a designer to simulate operation of the digital circuit.

1 27. (Previously presented) The method of claim 26, wherein blending the
2 first portion and the second portion involves mapping data types native to the
3 hardware description language to data types native to the computer programming
4 language.

1 28 (Canceled).

1 29. (Currently amended) The method of ~~claim 28~~claim 26, wherein the
2 wrapper provides data communication mechanisms between code written in the
3 hardware description language and code written in the computer programming
4 language, wherein the data communication mechanisms provide mapping between
5 types in the hardware description language and the computer programming
6 language.

1 30. (Currently amended) The method of ~~claim 28~~claim 26, wherein the
2 wrapper is automatically generated.

1 31. (Currently amended) The method of ~~claim 28~~claim 26, wherein the
2 wrapper provides automatic threading.

1 32. (Currently amended) The method of ~~claim 31~~claim 26, wherein
2 automatic threading enables code written in the computer programming language
3 to call code written in the hardware description language.

1 33. (Currently amended) The method of ~~claim 28~~claim 26, wherein the
2 wrapper can output a message upon an occurrence of a call and a return, wherein
3 the message can include values associated with the call and the return.

1 34. (Currently amended) A computer-readable storage medium storing
2 instructions that when executed by a computer cause the computer to perform a
3 method to facilitate simulating a digital circuit, the method comprising:
4 receiving a description of the digital circuit, wherein a first portion of the
5 description is in a hardware description language and a second portion of the
6 description is in a computer programming language,

7 blending the first portion and the second portion into an executable
8 simulation, wherein blending the first portion and the second portion involves
9 automatically creating a wrapper for code written in the computer programming
10 language so that code written in the hardware description language can call code
11 written in the computer programming language; and
12 executing the executable simulation, wherein executing the executable
13 simulation allows a designer to simulate operation of the digital circuit.

1 35. (Previously presented) The computer-readable storage medium of
2 claim 34, wherein blending the first portion and the second portion involves
3 mapping data types native to the hardware description language to data types
4 native to the computer programming language.

1 36 (Canceled).

1 37. (Currently amended) The computer-readable storage medium of ~~claim~~
2 ~~36~~claim 34, wherein the wrapper provides data communication mechanisms
3 between code written in the hardware description language and code written in the
4 computer programming language, wherein the data communication mechanisms
5 provide mapping between types in the hardware description language and the
6 computer programming language.

1 38. (Currently amended) The computer-readable storage medium of ~~claim~~
2 ~~36~~claim 34, wherein the wrapper is automatically generated.

1 39. (Currently amended) The computer-readable storage medium of ~~claim~~
2 ~~36~~claim 34, wherein the wrapper provides automatic threading.

1 40. (Currently amended) The computer-readable storage medium of ~~claim~~
2 ~~39~~claim 34, wherein automatic threading enables code written in the computer
3 programming language to call code written in the hardware description language.

1 41. (Currently amended) The computer-readable storage medium of ~~claim~~
2 ~~36~~claim 34, wherein the wrapper can output a message upon an occurrence of a
3 call and a return, wherein the message can include values associated with the call
4 and the return.

1 42. (Currently amended) An apparatus to facilitate simulating a digital
2 circuit, comprising:
3 a receiving mechanism configured to receive a description of the digital
4 circuit, wherein a first portion of the description is in a hardware description
5 language and a second portion of the description is in a computer programming
6 language,
7 a blending mechanism configured to blend the first portion and the second
8 portion into an executable simulation;
9 a creating mechanism configured to automatically create a wrapper for
10 code written in the computer programming language so that code written in the
11 hardware description language can call code written in the computer programming
12 language; and
13 an executing mechanism configured to execute the executable simulation,
14 wherein executing the executable simulation allows a designer to simulate
15 operation of the digital circuit.

1 43. (Previously presented) The apparatus of claim 42, further comprising a
2 mapping mechanism configured to map data types native to the hardware
3 description language to data types native to the computer programming language.

1 44 (Canceled).

1 45. (Currently amended) The apparatus of ~~claim 44~~claim 42, further
2 comprising a data communication mechanism configured to communicate
3 between code written in the hardware description language and code written in the
4 computer programming language, wherein the data communication mechanism
5 provides mapping between types in the hardware description language and the
6 computer programming language.

1 46. (Currently amended) The apparatus of ~~claim 44~~claim 42, wherein the
2 wrapper is automatically generated.

1 47. (Currently amended) The apparatus of ~~claim 44~~claim 42, wherein the
2 wrapper provides automatic threading.

1 48. (Currently amended) The apparatus of ~~claim 47~~claim 42, wherein
2 automatic threading enables code written in the computer programming language
3 to call code written in the hardware description language.

1 49. (Currently amended) The apparatus of ~~claim 44~~claim 42, wherein the
2 wrapper can output a message upon an occurrence of a call and a return, wherein
3 the message can include values associated with the call and the return.